GRANT BENSON

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Projects

FoldeD | C#, Unity

December 2024 - April 2025

• Engineered a paper glider simulation using aerodynamic estimation, procedural folding algorithms, and artificial intelligence algorithm to optimize flight distance.

Galaxian3D | Unreal Engine, Skyscape

December 2024

• Designed and implemented artificial intelligence agents with genetic algorithm and behavior trees such that enemies improve on what successfully dealt player damage each round to create immersive space fighting environment.

Coffee Maker | HTML, CSS, Javascript, Java, Spring, Hibernate, MySQL, Github

April 2024

- Developed functionality for ingredient addition, inventory system, and recipe creation through backend implementation.
- Facilitated user registration, authentication, order placement, fulfillment, and pickup through full-stack development.
- Leveraged the JUnit testing framework and GitHub actions to extensively test the backend and avoid regression.

Grant Game Engine | C++, Ubuntu

November 2023

- Designed and developed a networked, two dimensional SFML rendered, object-oriented game engine independently.
- Created server client architecture to support multiplayer using ZeroMQ Pub/Sub and Req/Rep sockets.

Six Floors Under $\mid C\#$, Unity

April 2023

- Implemented parts of all interactable characters, puzzle logic, and created assets/animations for levels and UI.
- Synchronized soundtrack that was 34th ranked globally in Ludum Dare 54 with character animations to immerse players.

Experience

North Carolina State University

February 2025 - May 2025

College of Engineering Undergraduate Researcher | Python, mmWave Studio

- Built a system to generate animated 3D skeletons from synchronized radar point cloud and multi-IMU data.
- Developed Python tools for depth estimation, sensor fusion, and visualizing human motion in real time.

The Net VR

May 2024 - November 2024

 $Gameplay\ Programmer \mid C\#,\ Unity$

- Coordinated and contributed to the development of alpha and beta builds with the Scrum schedule.
- Implemented various systems including client input, animation, Vivox spatial sound, and an object manager to create immersive digital cyberspace environment.

Dilweg

May 2022 - August 2022

Social Media Data Analyst Intern | Python, LinkedIn, Microsoft Excel

• Independently accomplished a data recording and organization project, successfully introducing thousands of potential clients to the business loop, significantly enhancing its outreach and client acquisition potential.

Education

North Carolina State University

 $\mathbf{Aug}\ \mathbf{2021} - \mathbf{May}\ \mathbf{2025}$

B.S. Computer Science & Game Development Concentration (3.5 GPA)

Raleigh, NC

Relevant Coursework

- Data Structures and Algorithms
- $\bullet\,$ Operating Systems

- Software Engineering
- Game Engine Foundations
- Introduction to AI
- Linear Algebra

Technical Skills

Languages: C#, C++, C, Java, Python, Javascript, WebGL, HTML/CSS, SQL

Developer Tools & Technologies: Unity, Unreal Engine, Git, Jenkins, JUnit, VS Code, Eclipse

Leadership / Service

Video Game Development Club

August 2023 – May 2025

Board Officer

- Organized and participated in Extra Life charity stream event to raise hundreds of dollars for Duke Children's Hospital.
- Co-organized the first ever regional game jam, Triangle Game Jam, in collaboration with Duke University and UNC Chapel Hill, coordinating participants, promotion, and event logistics.

Mission Trips

June 2017 & June 2019

- Mission Team Member in Stanton, KY & Uniontown, PA
 - Constructed wheelchair ramp and external renovations to enable resident mobility of housebound resident.
 - Revitalized dilapidated home with power washing, floor repair, and wall stripping.